

## BOTRYCHIUM ASCENDENS UPWARD-LOBED MOONWORT

Upward-lobed Moonwort is a perennial with a single aboveground frond that is usually ca. 10 cm tall and yellowish green. It is divided into two segments that share a common stalk. The mostly sterile segment is once-pinnatifid with up to 6 pairs of strongly ascending, narrowly triangular pinnae that have deeply lacerate margins. The sterile segment often has a few sporangia on the margins of the pinnae or on small branches. The fertile segment is longer than the sterile segment, branched, and bears grape-like sporangia. Frond maturing in June-July.

Distinguished by its strongly-ascending pinnae with lacerate margins and a yellow-green color. BOTRYCHIUM ASCENDENS otherwise resembles B. CRENULATUM, B. MINGANENSE, and B. MONTANUM. Positive identification of moonworts depends on the use of technical keys and on comparison with silhouette outlines of verified specimens, often complicated by morphological variability within and between populations, and the presence of several species growing together at the same site.